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CLAIMS:

What is claimed is:

1   1.   A method for writing data in a tape drive, the
2   method comprising:
3   allocating a blank area for transpose writing on a
4   magnetic tape;
5   writing a first plurality of data sets on the
6   magnetic tape adjacent to the blank area, wherein the
7   tape drive maintains full operating speed during
8   intervals between writing successive data sets, resulting
9   in spaces between the data sets; and
10   repositioning the tape at a specified interval and
11   writing a transposed data block to the allocated blank
12   area, wherein the transposed data block contains the same
13   content as the first plurality of data sets.

1   2.   The method according to claim 1, further comprising
2   allocating a second blank area for transpose writing
3   adjacent to the transposed data block, wherein allocating
4   the second blank area may include erasing a portion of
5   the first plurality of data sets.

1   3.   The method according to claim 1, wherein the data
2   written to both the first plurality of data sets and the
3   transposed data block is stored in a data buffer.

1   4.   The method according to claim 3, wherein the size of
2   the blank area allocated for transpose writing is

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3   determined by the size of the data buffer and a specified

4   data transfer rate.

1   5.   A tape drive, comprising:

2   a means for allocating a blank area for transpose

3   writing on a magnetic tape;

4   a write head for writing a first plurality of data

5   sets on the magnetic tape adjacent to the blank area,

6   wherein the tape drive maintains full operating speed

7   during intervals between writing successive data sets,

8   resulting in spaces between the data sets; and

9   a means for repositioning the tape at a specified

10   interval and writing a transposed data block to the

11   allocated blank area, wherein the transposed data block

12   contains the same content as the first plurality of data

13   sets.

1   6.   The tape drive according to claim 5, further

2   comprising a means for allocating a second blank area for

3   transpose writing adjacent to the transposed data block,

4   wherein allocating the second blank area may include

5   erasing a portion of the first plurality of data sets.

1   7.   The tape drive according to claim 5, wherein the

2   data written to both the first plurality of data sets and

3   the transposed data block is stored in a data buffer.

1   8.   The tape drive according to claim 7, wherein the

2   size of the blank area allocated for transpose writing is

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3 determined by the size of the data buffer and a specified
4 data transfer rate.

1 9.   A computer program product in a computer readable
2 medium for writing data in a tape drive, the computer
3 program product comprising:
4   first instructions for allocating a blank area for
5 transpose writing on a magnetic tape;
6   second instructions for writing a first plurality of
7 data sets on the magnetic tape adjacent to the blank
8 area, wherein the tape drive maintains full operating
9 speed during intervals between writing successive data
10 sets, resulting in spaces between the data sets; and
11   third instructions for repositioning the tape at a
12 specified interval and writing a transposed data block to
13 the allocated blank area, wherein the transposed data
14 block contains the same content as the first plurality of
15 data sets.

1 10.   The computer program product according to claim 9,
2 further comprising fourth instructions for allocating a
3 second blank area for transpose writing adjacent to the
4 transposed data block, wherein allocating the second
5 blank area may include erasing a portion of the first
6 plurality of data sets.

1 11.   The computer program product according to claim 9,
2 wherein the data written to both the first plurality of
3 data sets and the transposed data block is stored in a
4 data buffer.

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1 12. The computer program product according to claim 11,

2 wherein the size of the blank area allocated for

3 transpose writing is determined by the size of the data

4 buffer and a specified data transfer rate.